

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.9/14.3,0.0/1.6File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000816**Date Inspected:** 10-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sha Zhi & Li Gang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Caltrans Mockup**Summary of Items Observed:**

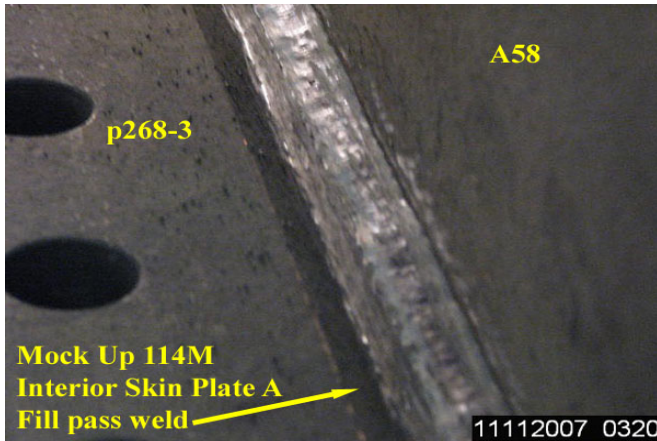
Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

ZPMC Quality Control Inspector, Mr. Zhang Jiadi Ken informed Caltrans QA Inspector that ZPMC would be welding on Mock-Up 114M, Interior Skin Plate A & D in building #2. Caltrans QA Inspector performed the following observations.

Item Description	WBS	Dwg No.	Status
1 Interior Skin Plate	NA	NA	Weling in Progress
Mock-Up 114M, Interior Skin Plate A: Caltrans QA Inspector observed flux cored arc welding (FCAW), complete joint penetration (CJP) weld, longitudinal stiffener (p268-3) joining skin plate A58, fill pass in the flat position. The welder is identified as Mr. Bai Wenming, welder stamp 040434. The welder is using welding procedure specification WPS-B-T-2231-TC-U5-F, Revision 1. Caltrans QA observed ZPMC Quality Control inspector, Mr. Xu Lefeng and Bureau Veritas (BV) inspector, Mr. Li Gang, monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 300 amps, 30.0 volts and 305 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). Following digital pictures illustrate welding in progress.			

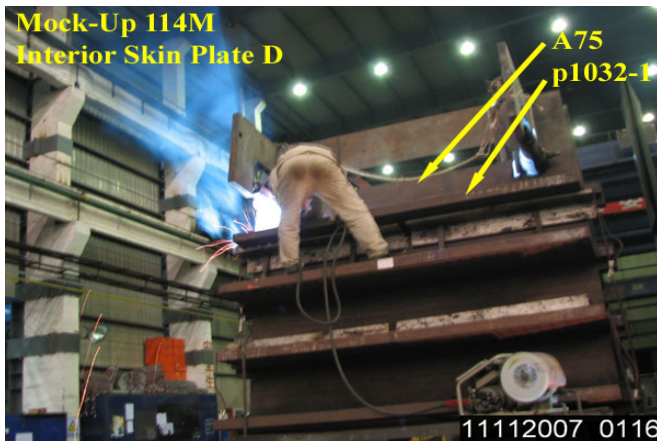
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2 Interior Skin Plate NA NA Welding in Progress

Mock-Up 114M, Interior Skin Plate D: Caltrans QA Inspector observed flux cored arc welding (FCAW), complete joint penetration (CJP) weld, longitudinal stiffener (p920-2) joining skin plate A75, fill pass in the flat position. The welder is identified as Mr. Chang Chuancang, welder stamp 053870. The welder is using welding procedure specification WPS-B-T-2231-TC-U5-F, Revision 1. Caltrans QA observed ZPMC Quality Control inspector, Mr. Sha Zhi and Bureau Veritas (BV) inspector, Mr. Li Gang, monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 290 amps, 30.3 volts and 295 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). Following digital picture illustrates welding in progress.



## Summary of Conversations:

As identified within the contents of this report.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hasler, Mike

Quality Assurance Inspector

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**Reviewed By:** Cuellar, Robert

QA Reviewer